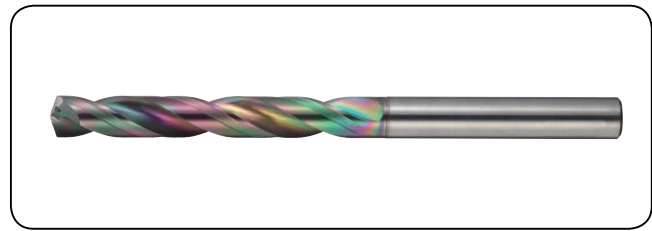


NHGS Type



Internal Coolant Supply (NHGS Type)

Carbon Steel	Alloy Steel	Tempered Steel	Hardened Steel	Stainless steel	Ti Alloy	Heat-resistant steel	Cast Iron	Ductile Cast Iron	Aluminium Alloy	Copper alloy	Composite CFRP
Up to 0.28%	From 0.28%		Up to 6HRC	From 49HRC			○	○	◎	◎	



● Diameter ø3.0 to ø8.0mm

■ Characteristics

● High efficiency drilling

AURORA COAT (DLC Coat) and low cutting resistance WL (Wide L) thinning drastically reduces cutting resistance.

● Stable Drilling Performance

Special cutting edge design and WW (Wide W) margin improves hole quality.

● Longer tool life

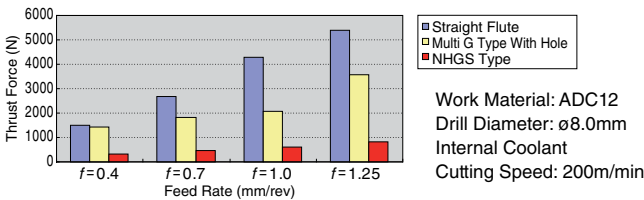
With AURORA COAT coupled with the cutting edge design, long and stable tool life can be achieved.

● Deep hole drilling possible

Drills for deep hole drilling can be custom-made.
(Production range: Drill diameters: ø3.0 to ø16.0mm
Total length: Available on inquiry)

■ Comparison of Cutting Resistance (Thrust Force)

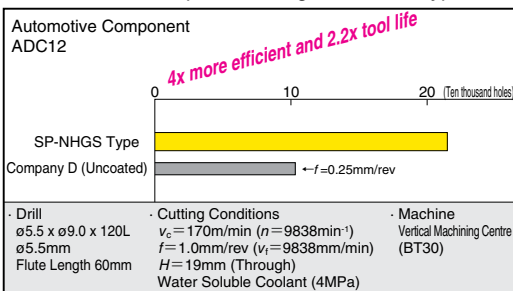
Drastic reduction in cutting resistance



■ Application Examples

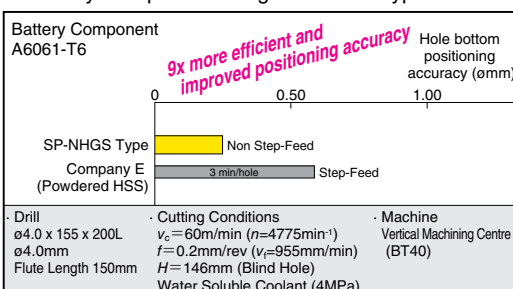
High Feed Drilling of Aluminium Alloy

● Automotive Component using SP-NHGS Type



Deep Hole Drilling of Aluminium Alloy

● Battery Component using SP-NHGS Type



Diameter øD _c (mm)	Shank øD _s (mm)	Cat. No.	3D Type		5D Type		10D Type	
			Stock	Dimensions (mm)	Stock	Dimensions (mm)	Stock	Dimensions (mm)
3.0	3.0	MDW 0300NHGS	3	68 17.5	5	78 28	10	92 42
3.1		MDW 0310NHGS						
3.2		0320NHGS						
3.3	4.0	0330NHGS		72 20		86 32		106 49
3.4		0340NHGS						
3.5		0350NHGS						
3.6		MDW 0360NHGS						
3.65		0365NHGS						
3.66		0366NHGS						
3.7	4.0	0370NHGS		72 22.5		86 36		106 56
3.8		0380NHGS						
3.9		0390NHGS						
4.0		0400NHGS						
4.1		MDW 0410NHGS						
4.2		0420NHGS						
4.3	5.0	0430NHGS		80 25		98 40		124 63
4.4		0440NHGS						
4.5		0450NHGS						
4.6		MDW 0460NHGS						
4.7		0470NHGS						
4.8	5.0	0480NHGS		80 27.5		98 44		124 70
4.9		0490NHGS						
5.0		0500NHGS						
5.1		MDW 0510NHGS						
5.2		0520NHGS						
5.3	6.0	0530NHGS		82 27.5		100 44		136 77
5.4		0540NHGS						
5.5		0550NHGS						
5.6		MDW 0560NHGS						
5.7		0570NHGS						
5.8	6.0	0580NHGS		82 30		100 48		136 84
5.9		0590NHGS						
6.0		0600NHGS						
6.1		MDW 0610NHGS						
6.2		0620NHGS						
6.3	7.0	0630NHGS		88 32.5		109 52		151 91
6.4		0640NHGS						
6.5		0650NHGS						
6.6		MDW 0660NHGS						
6.7		0670NHGS						
6.8	7.0	0680NHGS		88 35		109 56		151 98
6.9		0690NHGS						
7.0		0700NHGS						
7.1		MDW 0710NHGS						
7.2		0720NHGS						
7.3	8.0	0730NHGS		94 37.5		118 60		166 105
7.35		0735NHGS						
7.4		0740NHGS						
7.5		0750NHGS						
7.6		MDW 0760NHGS						
7.7		0770NHGS						
7.8	8.0	0780NHGS		94 40		118 64		166 112
7.9		0790NHGS						
8.0		0800NHGS						

Grade: DL1300

Drilling

Solid
Special
Indexable
Reamer
Brazed
Others